## STATEMENT OF BASIS

Baton Rouge Plastics Plant
ExxonMobil Chemical Company
Baton Rouge, East Baton Rouge Parish, Louisiana
Agency Interest Number: 285
Activity Number: 20030007
Proposed Permit No. 0840-00018-V3

#### I. APPLICANT:

Company: ExxonMobil Chemical Company P.O. Box 1607 Baton Rouge, LA 70821-1607

Facility:

Baton Rouge Plastics Plant 11675 Scotland Ave, Baton Rouge, East Baton Rouge Parish, Louisiana Approximate UTM coordinates: 674.6 km E and 3,381.2 km N, Zone 15

## II. FACILITY AND CURRENT PERMIT STATUS:

ExxonMobil Chemical Company's Baton Rouge Plastics Plant is located on the west side of La. Hwy. 19, between Scotlandville and Baker, Louisiana. The site is operating under Permit No. 0840-00018-V2 granted on October 31, 2001.

ExxonMobil's Baton Rouge Plastics Plant (BRPP) utilizes seven (7) production lines to manufacture various forms of polymers. A-F lines manufacture low density polyethylene (LDPE) by polymerization of ethylene and other chemicals in a high pressure process. Gline produces a metallocene ethylene elastomer (MEE) polymer. The Purge Gas Purification Unit (PGPU) purifies ethylene recycle gas from BRPP's operations and auxiliary feed streams for reuse in the plant process operations. The process lines generally include raw materials preparation (RMP), polymerization reaction (PR), materials recovery (MR), product finishing (PF), and product storage (PS). Other existing emission sources include boilers, flares, storage vessels, and other ancillary equipment.

### III. PROPOSED PERMIT / PROJECT INFORMATION:

#### **Application**

A permit application and Emission Inventory Questionnaire (EIQ) were dated December 21, 2003, March 23, 2005, and February 2, 2006 requesting a permit modification and renewal of the Part 70 permit for the Baton Rouge Plastics Plant.

#### **Project**

The proposed Emission Reduction Project will substantially reduce the amount of hazardous air pollutants (HAPs) and volatile organic compounds (VOCs) emitted by

Emission Point No. 01-95 (Product Handling & Storage). Specifically, the existing thermal oxidizer will control vents from B and C Lines. The VOC reduction for the B and C Lines Emission Reduction Initiative project will be approximately 170 tons per year, of which 94 tons per year are vinyl acetate.

BRPP is proposing to add a new resin compounding facility to be built on an undeveloped block in the western part of the plant. The facility will blend various polymers with specific additives.

## **Proposed Permits**

Permit No. 0840-00018-V3 will be the Part 70 operating permit renewal for the entire Baton Rouge Plastics Plant.

#### Permitted Air Emissions

Estimated emissions from the BRPP in tons per year are as follows:

Pollutant	Before	After	Change
PM <sub>10</sub>	31.00	32.45	+1.45
SO <sub>2</sub>	10.00	10.36	+0.36
NO <sub>x</sub>	230.00	229.81	-0.19
CO	160.00	160.04	+0.04
VOC	573.00	425.08	-147.92

### Type of Review

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, Louisiana Comprehensive Toxic Air Pollutant Emission Control Program, NSPS and NESHAP. PSD does not apply.

## Streamlined Equipment Leak Monitoring Program

The BRPP complies with a streamlined equipment leak-monitoring program. Compliance with the streamlined program shall serve to comply with each of the fugitive emission monitoring programs being streamlined, as indicated in the following table:

Unit	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
A-Line (RMP & PR) B-Line (RMP & PR) C-Line D-Line E-Line (RMP & PR) PGPU F-Line	LAC 33:III.2122 40 CFR 60 Subpart VV 40 CFR 63 Subpart FFFF	10% VOC 10% VOC 5% VOC	40 CFR 63 Subpart FFFF references to 40 CFR 63 Subpart UU for equipment leak provisions
G-Line	LAC 33:III.2122 40 CFR 60 Subpart VV 40 CFR 63 Subpart U	10% VOC 10% VOC 5% HAP	40 CFR 63 Subpart U references to 40 CFR 63 Subpart H for equipment leak provisions

## **MACT** requirements

These regulations define maximum achievable control technology (MACT) standards for stationary source categories of hazardous air pollutants (HAPs). These HAPs were listed in the Clean Air Act Amendments of 1990.

The BRPP is subject to the Miscellaneous Organic Chemical Manufacturing NESHAP (Subpart FFFF). This MACT rule was promulgated on November 10, 2003. Source types that are potentially applicable include storage vessels and fugitive emissions. Sources that are determined to be applicable to the requirements of Subpart FFFF will be in compliance by the required date.

#### Air Modeling Analysis

Impacts on air quality due to emissions from the BRPP are below the National Ambient Air Quality Standards (NAAQS) and the Louisiana Ambient Air Standards (AAS) beyond industrial property. Ambient Air Standard compliance has been demonstrated for all emitted air TAPs per BRPP's approved Air Toxic Compliance Plan. Emission changes resulting from this permit will not alter the demonstration.

### General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities refer to Section VIII of the draft Part 70 permit.

#### Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities refer to Section IX of the draft Part 70 permit.

#### Regulatory Analysis

The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the draft permit, or where provided, Table X and XI of the draft permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the draft permit, or where provided, Table X and XI of the draft permit.

#### IV. PERMIT SHIELDS

No permit shield will be granted with the proposed permits.

### V. PERIODIC MONITORING

BRPP is included in the Louisiana Fugitive Emission Program Consolidation. ExxonMobil BRPP conducts fugitive emissions monitoring in accordance with the specific conditions of this program (see Appendix A: Specific Conditions of the permit). Compliance with these specific conditions shall serve to comply with each of the several programs being streamlined.

## VI. Glossary

Carbon Monoxide (CO) - A colorless, odorless gas which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III. Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

National Emission Standards for Hazardous Air Pollutants (NESHAPs) – The NESHAPs were originally required by the 1970 Clean Air Act (CAA). These standards were developed for sources and source categories that were determined to pose adverse risk to human health by the emission of hazardous air pollutants (HAPs). The standards are set "at the level which ... provides an ample margin of safety to protect the public health from such hazardous air pollutant." These risk-based NESHAPs are located in 40 CFR 61. The NESHAPs program applies to all existing and new/modified sources. Congress directed EPA to develop a program to develop further the regulation of HAPs in Section 112 of the 1990 Clean Air Act Amendments (CAAA). While the standards for major sources of HAPs developed per this section are also designated as NESHAPs, they are established according to Maximum Achievable Control Technology (MACT). These technology-based NESHAPs are located at 40 CFR 63.

Nitrogen Oxides (NO<sub>x</sub>) - Compounds whose molecules consist of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) – New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (50 tons per year for sources in non-attainment parishes).

 $PM_{10}$  – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) - An oxide of sulphur.

Title V permit - See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.